

REMARKS

Please reconsider the application in view of the above amendments and the following remarks. Applicant thanks the Examiner for carefully considering this application.

Disposition of Claims

Claims 1-2, 6, 7, 9-12, 16, 17, and 20-23 are pending in this application. Claims 1, 10, 11, and 22 are independent. The remaining claims depend, directly or indirectly, from claims 1, 11, and 22. Independent claim 22 and dependent claim 23 have been cancelled by this reply without prejudice or disclaimer.

Specification Amendments

Paragraph [0021] has been amended to clarify that the projected object graph corresponds to an object graph only populated with objects and attributes required for a particular state. Support for this amendment may be found, for example, in paragraph [0020] and Figures 2 and 3 of the instant specification. Further, paragraph [0033] has been amended to correct a typographical error (*i.e.*, projected object graph) and to clarify that 8' in Figure 3 is not a service-side projected graph data structure representation of an object graph; rather 8' is a projected object graph that may be created using the service-side projected graph data structure representation. Support for this amendment, may be found, for example, in paragraphs [0020] and [0028] as well as original claim 1. No new matter has been added by any of the aforementioned amendments.

Claim Amendments

Independent claims 1, 10, and 11 have been amended to use terminology in a manner that is consistent with the specification. Specifically, all instances of the term “projected graph data structure representation” have been amended to “service-side projected graph data structure representation.” Further, all instances of the terms “projected graph data structure” and “server graph data structure” have been amended to “projected object graph” and “server object graph,” respectively. Support for the aforementioned amendments may be found, for example, in paragraph [0033] and Figure 5 of the instant specification.

Further, independent claims 1, 10, and 11, have been amended to clarify that “the service-side projected graph data structure representation is represented using a hash table.” The aforementioned limitation is now consistent with the teachings in paragraph [0028] of the specification.

In addition, dependent claims 2, 6, 7, 9, 12, 16, 17, 20, and 21 have been amended to address antecedent basis issues arising from the amendment of independent claims 1 and 11. No new matter has been added by any of the aforementioned amendments.

Drawings

Applicant respectfully requests that the Examiner indicate whether the drawings filed on January 11, 2002 are acceptable.

Rejection(s) under 35 U.S.C § 112

Claims 1, 10, 11, and 22, stand rejected under 35 U.S.C. §112, ¶1 because the best mode contemplated by the Inventor has not been disclosed. Claim 22 has been cancelled by this reply.

Accordingly, this rejection is now moot with respect to claim 22. To the extent this rejection applies to the pending amended claims, the rejection is respectfully traversed.

The Examiner has based on the aforementioned rejection upon an inconsistency in the specification (*i.e.*, a portion of paragraph [0021]) as well as the usage of terminology in the claims in a manner that is inconsistent with the specification. With respect the inconsistency in the specification at paragraph [0021], paragraph [0021] has been amended to clarify that the projected object graph corresponds to an object graph that only includes the objects and corresponding attributes necessary to represent a particular state (*see e.g.*, Figure 3). The Applicant respectfully asserts that the inconsistency noted by the Examiner (*see* Office Action mailed August 8, 2005, p. 2) has been addressed by the above amendment.

Further, *all* instances of the term “projected graph data structure” and “server graph data structure” have been amended to “projected object graph” and “server object graph,” respectively. Thus, the amended claims include terminology that is consistent with the terminology used in the specification. In addition, the claims have amended to clarify that the service-side projected object graph data structure representation is represented using a hash table (*i.e.*, the content of the service-side projected object graph data structure representation is stored in a hash table).

In view of the above, the Applicant respectfully asserts that the claims and the specification are now consistent and the issues raised by the Examiner with respect to the aforementioned inconsistencies are now moot. Accordingly, withdrawal of this rejection is respectfully requested.

Rejection(s) under 35 U.S.C § 103

Claims 1-2, 6-7, 10-12, 16-17 and 21-23 stand rejected under 35 U.S.C. § 103 as being obvious over U.S. Patent No. 5,991,771 (“Falls”) in view of Patent Application Publication No. US2001/0034733 (“Prompt”) and further in view of Patent Application Publication No. US2002/0016412 (“Barnes”). Claims 22 and 23 have been cancelled by this reply. Accordingly, the rejection is now moot with respect to claims 22 and 23. To the extent that this rejection still applies to the amended independent claims, the rejection is respectfully traversed.

Falls does not teach or suggest a variable usage specification as recited in the amended independent claims. Specifically, Falls does not teach a variable usage specification *comprising a plurality of states and at least one transition for an application*. Rather, Falls only teaches a schema (84) that defines the contents of objects in a given database (*See Falls*, col. 8, ll. 40-49) without any indication that a particular object is associated with a state of the application. Clearly, a schema (84) that merely describes the contents of objects in a database is not equivalent to a variable usage specification that describes the states and transitions for an application as recited in the amended independent claims.

Moreover, even assuming *arguendo* that a schema is equivalent to the variable usage specification, Falls does not teach or suggest listing individual attributes required for each state within the application. Rather, Falls only discloses a schema that details how individual objects within the database are associated with each other.

In addition, Falls does not teach or suggest a transition comprising business logic to transition the application from one state to another as recited in the amended independent claims. Rather, Falls, as asserted by the Examiner, only teaches changing the values of individual objects within a database (*See Falls*, col. 13 – col. 14). The Applicant respectfully asserts that functionality to merely change a value in a database is not equivalent to changing the state of an

application (*i.e.*, a transition) as recited in the claims. In particular, transitioning from one state of the application to another state in the application, includes executing operations (that are embodied within the transition) to obtain the necessary information to display the state (*e.g.*, a web page) to the user. As recited in the amended claims, the necessary information for the particular state is specified in the variable usage specification.

In view of the above and the fact that the Examiner does not rely on Prompt or Barnes to teach a variable usage specification, the amended independent claims are patentable over Falls, Prompt, and Barnes. Dependent claims are allowable for at least the same reasons. Accordingly, withdrawal of this rejection is respectfully requested.

Claims 9 and 20 stand rejected under 35 U.S.C. § 103 as obvious over Falls in view of Prompt, and further in view of Barnes, and further in view of Patent No. 6,063,128 (“Bentley”).

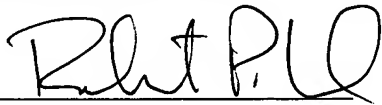
As discussed above, Falls fails to teach a variable usage specification as recited in amended independent claims 1 and 11 from which claims 9 and 20 depend. Further, the Examiner does not rely on Prompt, Barnes, or Bentley to teach or suggest a variable usage specification. In view of the above, amended independent claims 1 and 11 are patentable over Falls, Prompt, Barnes, and Bentley. Accordingly, dependent claims 9 and 20 are also allowable for at least the same reasons. Withdrawal of this rejection is respectfully requested.

Conclusion

Applicant believes this reply is fully responsive to all outstanding issues and places this application in condition for allowance. If this belief is incorrect, or other issues arise, the Examiner is encouraged to contact the undersigned or his associates at the telephone number listed below. Please apply any charges not covered, or any credits, to Deposit Account 50-0591 (Reference Number 16159/018001).

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Respectfully submitted,

By 

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Attachments (Clean copy of specification amendments)

Clean Copy of Amended Paragraphs

Paragraph [0021]:

The projection generation system automatically generates projected object graphs, where in one embodiment, the projected object graph corresponds to an object graph only populated with objects and attributes that are required for a particular state. The attributes in the project object graph may be accessed via accessors and mutators, where in one embodiment, an accessor may be a get method and a mutator may be a set method.

Paragraph [0033]:

Figure 5 illustrates a flow diagram, which describes one embodiment of the invention. During the typical operation of the projection generator 30, the customer component 40 obtains a requested state from the client component 32, where in one or more embodiments of the present invention, the requested state is the state to which the application is transitioning. Subsequently, the VUS 70, which may be provided by the programmer or dynamically generated by the client, is sent to the customer component 40. With the aforementioned input, the customer component 40 determines the server object graph attributes and methods that are required and sends a request 47 to the service component 52. The server object graph 44 is obtained from a persistent data store (not shown), where, in one or more embodiments of the present invention, the server object graph 44 is a complete object graph containing all object graph attributes and methods, *e.g.*, 8 in Figure 2, and is it fetched directly by the service component 52. The service component 52, in one or more embodiments of the invention, combines the input from the customer component 40 and the server object graph 44 to generate a service-side projected object graph representation 51, *e.g.*, an object graph representation corresponding to 8' in Figure 3. The service-side projected graph representation 51 is then forwarded via a replay 49 to the customer component 40. The customer component receives the service-side projected object graph representation 51 and uses it to instantiate a projected object graph 44.